

CLAIMS

1. A method of manufacturing a porous ceramic structure, comprising the steps of: preparing a formed structure using a ceramic material containing a pore former and a binder; and drying and firing the formed structure,

5 wherein the process of firing the formed structure comprises the steps of: holding a firing atmosphere temperature in a temperature range of -50 to $+10^{\circ}\text{C}$ with respect to a combustion start temperature of the binder from time when a firing atmosphere temperature reaches the combustion start temperature of the binder contained in the porous ceramic structure to be fired to time when the binder is burnt out.

2. The method of manufacturing the porous ceramic structure according to claim 1, wherein the firing atmosphere temperature is held in a temperature range of -50 to $+10^{\circ}\text{C}$ with respect to the combustion start temperature of the binder from time when the temperature reaches a temperature lower than the combustion start temperature of the binder by 50°C to time when the binder is burnt out.

3. The method of manufacturing the porous ceramic structure according to claim 1 or 2, wherein the binder comprises at least one type selected from a group consisting of hydroxypropyl methyl cellulose, methyl cellulose, hydroxyethyl cellulose, carboxyl methyl cellulose, and polyvinyl alcohol.

4. The method of manufacturing the porous ceramic structure according to any one of claims 1 to 3, wherein the pore former comprises at least one type selected from a group consisting of flour, starch, phenol resin, foam
5 resin, foamed foam resin, polymethyl methacrylate, and polyethylene terephthalate.

5. The method of manufacturing the porous ceramic structure according to any one of claims 1 to 4, wherein the porous ceramic structure is a honeycomb structure.